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should reduce the risk of occupational human immunodeficiency virus (HIV) infection by the same rate [as needlesticks] (62%). . . . Based on the study data alone, the correct conclusion is that the implementation of UPs should not be expected to reduce either needlestick injuries or the risk of HIV infection associated with them.

Even if the reported difference had been statistically significant, the result would still be inconclusive because the investigators have used an inappropriate denominator (physician-patient-care months) for calculating needlestick rates. The risk of needlestick injuries is directly related to the number and types of needles used, and only indirectly, if at all, to the duration of patient care. The use of patient-care months for the calculation of needlestick rates among physicians is misleading. For example, in this study, physicians could achieve an apparent reduction in needlestick rates simply by delegating a greater proportion of needle procedures to nursing staff.

There is a growing body of evidence indicating that UPs alone are not sufficient to reduce the risk of needlestick injuries.⁴⁴ We are concerned that prolonging the reliance on UPs to prevent needlestick injuries will only further delay the transition to safer needle designs, a delay that will be measured by the number of health care workers contracting fatal, preventable disease.

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In Reply.—We believe our choice of patient-care months as the denominator for occupational exposures is neither inappropriate nor misleading. In our study, we were interested in the difference in the frequency of occupational exposures before and after implementation of UPs and, specifically, with regard to needlestick injuries, the percent reduction as a result of UPs (ie, the rate of injuries after implementation divided by the rate of injuries before implementation). For this calculation, it is clear that the choice of denominators is irrele-

vant since they cancel out. We contend that the risk of needlestick injuries is procedure-dependent and the number of patients cared for on the study wards is the most important determinant of the number of procedures performed. Since we observed no variations in the month-to-month patient census or any changes in ward practices during the study period, we attributed the reduction in the frequency of exposures to the effect of UPs. Thus, while it is possible that physicians could have actually reduced their risk of needlestick injuries by delegating procedures to nurses after implementation of UPs, we have no reason to believe that this occurred and, in fact, this was not observed.

Regarding our interpretation of needlestick data, we documented a 62% reduction in the frequency of needlestick injuries after the implementation of UPs. Although this was not statistically significant, we believe the observed reduction in injuries among our physicians reflects a real trend that would be statistically significant had our study period been extended. Studies on the epidemiology of needlestick injuries suggest that placement of puncture-resistant needle disposal units at the site of use can prevent certain types of needlestick injuries, namely those due to recapping, transport of uncapped needles, and improper disposal.⁴⁵ These types of preventable injuries represent approximately 20% of all needlestick injuries reported by hospital employees. However, studies also suggest that among house-staff physicians, the percentage of preventable needlestick injuries may be much higher than among nonphysician health care workers, eg, nurses.⁴⁶ In one recent study,⁴ the proportion of injury among house-staff physicians due to recapping was 54% and due to improper disposal, 3%. Thus, the placement of needle disposal units in treatment areas may have a greater effect on physicians than on other health care workers, which may explain why our study, which observed physicians only, demonstrated a benefit, while other studies, which have included all groups of health care workers, did not.

As studies by Jagger and others have shown, the problem of needlestick injuries is complex. The solution, by necessity, will also be complex and involve multiple approaches, including education, better needle disposal systems, and improved design of needles and related equipment. Jagger and Pearson misinterpret our study in that we are not suggesting that UPs, with improved access to needle disposal, will by themselves solve the needlestick injury problem. Our results do suggest that UPs

are helpful and, as such, should be included in any prevention program.

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Medical Malpractice Suits and Autopsies

To the Editor.—In the March 6 A Piece of My Mind entitled "Coming Home,"¹ Goldstein comments on the psychological pressures associated with a medical malpractice lawsuit. I believe him.

Are there some untoward events that could be prevented from developing into malpractice lawsuits? Yes, there are, especially in many situations involving a death that was not expected and is not understood. A complete, thorough, and timely autopsy by a competent, experienced forensic pathologist will, more often than not, provide a definitive and objective explanation that the attending physician can relate to the family. While this approach does not guarantee that the family will not sue the physician or hospital, it markedly diminishes the likelihood of such a hostile undertaking.

Goldstein tells us about "the case of the elderly man who died unexpectedly the day before planned discharge. There was no autopsy. . . ." Evidently, there was a subsequent malpractice lawsuit filed by the family. What would the odds have been against such a legal action's being filed if an independent postmortem examination had been performed? Very much in favor of the physician, I can assure you.

It is an incredible paradox—fascinating, puzzling, and disturbing—that at a time when the incidence of medical malpractice lawsuits continues to rise, the percentage of hospital and other private (ie, not done by medical examiners or coroners) autopsies continues to decline.

Are physicians, in their paranoia about lawyers and the civil justice system, actually hurting themselves by deliberately refraining from obtaining

permission for postmortem examinations when an unanticipated and seemingly inexplicable death of a patient occurs? Regrettably, national statistics would seem to indicate that this is exactly what is happening.

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In Reply.—The purpose of my essay was to expose the personal shortcomings in the way our society chooses to handle medical malpractice lawsuits. Such shortcomings manifest themselves for physicians in at least two ways. First, most clinicians, regardless of their specialty or the health care setting, at least think about potential malpractice lawsuits subconsciously and consciously, and probably on at least a weekly if not daily basis, regardless of whether they have personally ever been sued. An aura of silence usually surrounds such thoughts despite the enormous implications for patient care. Second, as clinicians, we somehow often feel immune to the same diseases attacking the immune systems of our patients: stress, anger, hostility, rejection, burnout, disappointment, and more. Medical malpractice lawsuits, regardless of their origin, pathophysiology, or prognosis, negatively affect our personal and our family's health. Our own self-healing process can begin by openly acknowledging and discussing such effects, rather than acquiescing to silence, shame, or guilt.

In his letter, Wecht bemoans the fact that "the percentage of hospital and other private autopsies continues to decline," attempting to link such declines to the high rates of medical malpractice lawsuits. I do not know of any research that establishes such a relationship. Wecht is correct to reinforce the importance of autopsies as an important part of medical education, research, and clinical care, but his assumptions that I was sued after a patient under my care died unexpectedly before planned discharge from the hospital and that I did not seek an autopsy in the case, implying that such autopsy was actually purposefully avoided, are both false. The patient's family explicitly refused multiple requests for an autopsy. My interest in the autopsy was to learn from the cause of death so that I could take better care of patients in the future.

Physicians should not be asked to order autopsies to defend their own interests. While autopsies certainly may be used to justify a physician's actions in a medical malpractice lawsuit, it is a fact that the outcomes of such autopsies are also used to initiate these lawsuits.¹ The true purpose for autopsies would appear to lie in the advancement of scien-

tific knowledge and assistance in criminal investigations. Avoiding medical malpractice lawsuits is more easily accomplished by long-term, trusting physician-patient relationships. Such relationships are difficult to establish post mortem.

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HIV in Prison: A Counseling Opportunity

To the Editor.—Vlahov et al¹ recently found higher human immunodeficiency virus type 1 (HIV-1) seroprevalence among female than male inmates in nine of 10 US correctional facilities surveyed. Seroprevalence among younger women (<26 years) was higher than among younger men but similar to that in both older women and older men. In their blinded study, Vlahov et al were unable to evaluate the extent to which female inmates were more likely to be intravenous drug users and to have acquired HIV-1 infection through parenteral transmission.

We reviewed the results of an anonymous 1987 survey of 3037 inmates in the Cook County (Illinois) Department of Corrections in order to determine if female inmates were more likely than male inmates to have a history of injectable drug use. In stratified analyses adjusted for differences in race-ethnicity and age, female inmates were almost twice as likely as male inmates to report injectable drug use (adjusted odds ratio [OR] = 1.92; 95% confidence interval, 1.50 to 2.46). Moreover, the greater likelihood of female inmates to report a lifetime history of injectable drug use was significantly and inversely associated with age; ORs ranged from 2.13 among inmates younger than 26 years to 1.22 among inmates older than 45 years (Mantel extension for the test of trend: $\chi^2 = 25.27$, 1 df; $P < .001$).

These results and those of Vlahov et al may reflect gender- and age-related differences in the reason for incarceration. Both studies support the view that incarcerated younger women are likely to be HIV-1 seropositive due to intravenous drug use.

We believe it is important to underscore the potential of correctional facilities for reaching younger intravenous drug users, both male and female. In our survey, 17% of those who reported prior drug use with a needle were younger than 25 years. These recent initiates to intravenous drug use are at a high risk for HIV-1 infection^{2,3} but are unlikely to seek drug abuse treatment for sev-

eral years.⁴ Correctional facilities provide a setting for HIV-1 surveillance activities and the provision of acquired immunodeficiency syndrome-risk reduction counseling to younger intravenous drug users.

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1. Vlahov D, Brewer F, Castro KG, et al. Prevalence of antibody to HIV-1 among entrants to US correctional facilities. *JAMA*. 1991;265:1129-1132.

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This letter was shown to the authors, who declined to reply.—ED.

Seasonality in Sudden Infant Death Syndrome

To the Editor.—A major objective of the Centers for Disease Control (CDC) *Mortality and Morbidity Weekly Report* is to document disease trends accurately. The effort to achieve this goal in the CDC study on sudden infant death and seasonality¹ was weakened by a failure to exclude cases certified as sudden infant death syndrome (SIDS) in which a death-scene investigation was not performed. Contrary to common belief, a high autopsy rate in a SIDS study confirmed by death certificate data does not strengthen the validity of this study when information is lacking concerning death-scene investigation of the presumed SIDS cases.^{2,3}

The observation by the author of the CDC report that the risk of SIDS was greatest for those white male infants whose mothers resided in the western United States must be cautiously interpreted since nonwhite Hispanic infants may be classified as white on death certificates. Because the incidence of SIDS is higher in Hispanic, black, and Native American populations, and because the largest and fastest growing Hispanic population is in the West, the emerging SIDS trend in white male infants, as suggested by the CDC, may represent SIDS cases from Hispanic minority groups that were misclassified according to race or ethnicity in the early and middle 1980s. During the last few years, governmental agencies responsible for vital statistics have encouraged more